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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/845,355      | 05/01/2001  | Tetsuo Nakamura      | Q64193              | 2615             |

7590 07/31/2002  
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Washington, DC 20037

EXAMINER

CHEA, THORL

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1752

DATE MAILED: 07/31/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant(s)

09/845,355

NAKAMURA ET AL.

Examiner

Thorl Chea

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 May 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Miyamoto et al (Miyamoto) and Hioki et al (Hioki).

Miyamoto discloses silver halide emulsion containing dyes within the scope of the claimed invention. Note especially formula (I) in column 2 and the exemplified compounds in columns 5-12 wherein the dyes having a " $-\text{SO}_3^-$ " containing substituent and the other substituents are not the " $-\text{SO}_3^-$ " containing substituent, and these substituents have structure within the scope of the claimed invention. In the abstract, it is disclosed "the silver emulsion is subjected to spectral sensitization with at least one type of a methine compound represented by formula (I). In column 3 lines 10-15, Miyamoto prefers a substituent containing a sulfo group as R<sub>2</sub>. The most of exemplified compounds in Miyamoto are compounds containing a substituent having " $-\text{SO}_3^-$ " containing substituent and the other substituents containing a dissociable group other than " $-\text{SO}_3^-$ " containing substituent. In the formula (I) in column 2, it is disclosed that " $(\text{X}_1)_k$ " represents anion and k represents a number required to adjust the charge in the molecule to 0.

Hioki in column 5, lines 49-51, discloses that a sulfo group is described as " $-\text{SO}_3^-$ ", but it can be described as " $\text{SO}_3\text{H}$ " when hydrogen ion is presented as a counter ion. The use of counter ions to balance the charge is disclosed in column 2, lines 30-35.

The difference between the claimed invention and that of Miyamoto is the "H" associated with the sulfo group. Miyamoto is silence with respect to the use of hydrogen atom to balance the charge of the dye molecule, but Hioki discloses that "H" can be used to balance the charge of dye molecule containing sulfo group. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use positively charged hydrogen to adjust the charge in the molecule of the dye taught in Miyamoto, and thereby provide an invention as claimed.

3. Claims 1-6, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hioki et al (Hioki).

Hioki discloses silver halide material substantially as claimed. See the abstract wherein the material contains at least one dye of formula (I) and formula (II); exemplified compound of formula (I) and exemplified of formula (II) in columns 6-9 wherein one of the dye substituents contains " $-\text{SO}_3^-$ " group and the other contains groups different from " $-\text{SO}_3^-$ " such as " $-\text{CO}_2\text{H}$ " or " $\text{CONHSO}_2\text{CH}_2$ ". Hioki may not exemplify the use of dyes having one substituent containing  $-\text{SO}_3\text{H}$  and the other substituents represent a dissociable group other than that of  $-\text{SO}_3\text{H}$ ; but suggest the use of dye having similar structure to that of the present claimed invention as in combination. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to

spectrally sensitize silver halide emulsion taught in Hioki using a combination of dyes taught therein to provide an invention as claimed.

***Response to Arguments***

4. Applicant's arguments filed May 28, 2002 have been fully considered but they are not persuasive. The applicants argued that Miyamoto does not teach or disclose the use of two type of dyes, both within the scope of formula (I) together in a silver halide emulsion. Likewise, Hioki does not teach or discloses the use of two types of dye, both within the scope of formula (I) together in a silver halide emulsion. Moreover, even if the cited references are combined Applicants' invention would not be obtained. Therefore, it is respectfully submitted the Examiner has not established a prima facie case of obviousness in view of Miyamoto and Hioki. The applicants further argued that to advance the prosecution of the case, the applicants has provided additional declaration evidence showing the improved properties of the presently claimed silver halide photographic composition over the material of the reference rejection.

It is the Examiner's position that the prima facie case of obviousness has been established. The applied prior art of record teach the use of at least one dye represent of formula (I) in the abstract. In the formula (I). In columns 7-12, R1 and R2 represent different substituents. R2 is an alkyl group substituted with a sulfo group and R1 is not a sulfo group. Thus, at least R2 is substituted with a sulfo group and the R1 is a group substituted with other than a sulfo group including the dissociable group within the meaning of the present claimed invention. Note especially the dissociable group other than  $-\text{SO}_3\text{H}$  in the specification disclosure on page 4 first paragraphs in comparison

with the R1 group in the abstract of Miyamoto et al. Miyamoto may not exemplified the use of two compounds within the generic formula (I), but suggest the use of at least one which encompasses the scope of two or more dye compound within that generic formula (I) or more than one exemplified dyes disclosed in columns 5-12 since these compounds belong to the preferred embodiment of Miyamoto. Since the use of more than dye suggested in Miyamoto et al, the teaching of Miyamoto et al renders the claimed invention prima facie obvious. Therefore, the reference suggests and makes obvious the claimed subject matter. In re Malagari, 182 USPQ 549.

The Declaration under 37 CFR 1.132 filed May 29, 2002 fails to overcome the established prima facie case of obviousness rejection. First, the applicants fails to compare their material with the closest prior art of record namely Miyamoto et al example 1 Table 1 in column 35. Second, the results shown in the Declaration is not commensurate with the scope of the claimed invention. The sample No. 201 of example 2 of the present application is related to a silver halide color photographic material, whereas the silver halide emulsion as claimed can be used in a black and white photographic material such as shown in example 1 of Miyamoto et al. Third, the improvement of the sensitivity would have expected from the use of dye of Miyamoto et al. Note to Table 1 or Miyamoto wherein the sensitivity of the material is higher than that presented in the Declaration. Note inventive samples 106 to 108. Accordingly, the rejection set forth above is still proper and should be maintained.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (703)308-3498. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet C Baxter can be reached on (703)308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9301 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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tchea   
July 17, 2002

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Thorl Chea  
Primary Examiner  
Art Unit 1752